ABSTRACT OF THE DISCLOSURE

Provided is a technique of effectively removing a metallic element that has catalytic action in terms of the crystallization of a semiconductor film and remains in a semiconductor film obtained using the metallic element. With the technique of the present invention, to remove a catalytic element used to crystallize a semiconductor film having an amorphous structure, gettering is completed by forming a region or a semiconductor film, to which a rare gas element is added, and by having the catalytic element move to the formed region or semiconductor film.